UNITED STATES PATENT AND TRADEMARK OFFICE HL

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,159	09/12/2003	Cristian A. Lopez	020569-05801(P202-1294-US	8725

54487 7590 08/15/2006

JONES & SMITH, LLP
THE RIVIANA BUILDING
2777 ALLEN PARKWAY, SUITE 800
HOUSTON, TX 77019-2141

EXAMINER	
PEZZUTO, HELEN LEE	
ART UNIT	**PAPER NUMBER**
1713	

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/662,159	LOPEZ ET AL.	
	Examiner	Art Unit	
	Helen L. Pezzuto	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25 and 36-46* is/are pending in the application.

4a) Of the above claim(s) *46* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25, 36-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-25 and 36-46* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/27/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's cancellation of claims 26-35, and the addition of claims 37-46 filed in the response on 4/27/06 are acknowledged. Currently, claims 1-25, and 36-45 are under consideration in this application.

Election/Restrictions

1. Newly submitted claim 46 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 46 is directed to another invention that is substantially free of water, classified in class 525.

Since applicant has received an action on the merits for the originally presented invention, which are directed to an invention containing water and/or brine, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 46 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-25, and 36-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Unger et al. (US-082) or Ishii et al. (US-651) or Nakashita et al. (US-336) for the reasons of record.

US 5,502,082 to Unger et al. discloses a crosslinked article having enhanced thermal insulating property, derived from a hydrogel polymer (abstract). Suitable hydrogel polymer taught include natural (i.e. starch, gums) and synthetic polymer (i.e. starch graft copolymers) (col. 2, lines 11-36; col. 5, lines 12-51; Examples 4 and 8) and mixtures thereof, in an effective amount of 0.02% to 15% (col. 5, lines 55-65). Polyols are disclosed in terms of solvent additives and drying control chemical agents (col. 2, lines 55-61; col. 7, lines 3-11; col. 11, lines 58-61). Gelling agent disclosed within the scope of the instant crosslinking agent include boric acid/borate, chemical crosslinking agents, and polycationic species as expressed in the present claims (col. 5, line 66 to col. 6, line 51; col. 10, lines 15 to col. 11, line 24; working Examples). Accordingly, it would have been obvious to one skilled in

the art to employ a mixture of hydrogel polymers, disclosed within the scope of the instant water-superabsorbent polymer and viscosifying polymer, motivated by the expectation of thermal insulation improvement as taught. The absorbency expressed in claims 2-5 is considered inherent property in prior art hydrogel composition in light of the identical material used. The burden is placed upon the applicant to provide clear evidence that the respective compositions do in fact differ. Once the suggestion of various ingredients is provided, one skilled in the art would have readily envisaged the optimum or workable ranges within prior art general conditions.

US 5,965,651 to Ishii et al. discloses a liquid-absorbing material composition having enhanced thermal stability (col. 20, lines 23-28). Prior art composition comprises a crosslinking agent, an N-vinylcarboxyamide copolymer, water, water-soluble organic solvent and a plasticizer (col. 2, lines 26-54; col. 5, lines 29-43; col. 10, lines 36-49; col. 16, lines 15-25). Prior art further discloses natural and synthetic hydrophilic polymers within the scope of the instant superabsorbent polymer and viscosifing polymer (col. 16, lines 26-59; col. 21, lines 3-20; working Examples). Accordingly, it would have been

obvious to one having ordinary skill in the art to use a mixture of natural and synthetic hydrophilic polymers as taught for the expected additive results in thermal insulation enhancement, in light of their having been disclosed as suitable hydrophilic polymer alternatives by patentees. Absent evidence of unusual or unexpected results, no patentability can be seen in using a mixture of hydrophilic polymers wherein each is used for the same purpose by the prior art. Once the suggestion of various components is provided, one skilled in the art would have readily envisage the optimum or workable ranges within prior art general conditions. The absorbency of the superabsorbent polymer is considered inherent in the prior art as discussed above.

Similarly, US 5,077,336 to Nakashita et al. discloses an insulating composition comprising polyvinyl chloride, a plasticizer, a water-absorbing gel (abstract). Suitable water-absorbing polymer include natural and synthetic polymer species (col. 2, lines 10-36; col. 3, lines 25-39) within the scope and function of the instant superabsorbent polymer and viscosifing polymer. Patentees teach using 0.1-5.5 parts by weight of the water-absorbing polymer based on 100 parts of water. Curing/crosslinking agents are

disclosed within the scope of the instant crosslinking agents, and ethylene glycol or diethylene glycol are taught to be suitable co-solvent with water (col. 3, lines 47-62). Accordingly, it would have been obvious to one having ordinary skill in the art to use a mixture of natural and synthetic water-absorbing polymers as taught for the expected additive results in excellent heat-insulation properties, in light of their having been disclosed as suitable water-absorbing polymer alternatives by patentees. Absent evidence of unusual or unexpected results, no patentability can be seen in using a mixture of hydrophilic polymers wherein each is used for the same purpose by the prior art.

Response to Arguments

Applicant's arguments filed 4/27/06 have been fully considered but they are not persuasive. The crux of applicant's argument lies in while the final product of prior art is water absorbing, the reactants per se are not water absorbing (i.e. prior to their crosslinking). The examiner respectfully disagrees. One having ordinary skill in the art recognize that many of the hydrophilic polymer are conventionally disclosed or taught to be water absorbing polymers without expressly labeling them being

crosslinked, neutralized or partially crosslinked. See US 6,497,891, col. 2, line 50 to col. 3, line 35; US 5,432,000, col. 13, lines 36-59; US 4,664,816, col. 5, lines 9-45. This is further evidence in applicant's own claim 10, and claims dependent thereon, wherein some of the species are not expressly recited as being crosslinked. As long as prior art disclosure teaches the instant composition as a whole, the instant composition is within the sphere of obviousness encompassed by prior art disclosure. Accordingly, the examiner's position is maintained.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Helen L. Pezzuto
Primary Examiner

Art Unit 1713

hlp